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Some common names for Top End frogs

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Introduction

Animals that are noticed because they are abundant or readily observed tend to acquire common names, and for many people these names are easier to remember than Latin (scientific) names. Fauna with specific, easily recognisable or distinguishing features also frequently have common names. A short history of association in Australia between non-indigenous people and native animals, and for much of the populace, minimal interest in native fauna, have meant that many species do not have designated labels. The human population in the far north of Australia is small and development of a detailed knowledge of the fauna is still in its infancy. As a consequence, many species in the Top End lack common names. For example, many tropical plants lack widely accepted common names, there are few regularly used names for lizards, and practically none for invertebrates (although see Horner 1991, Braby 2000, Andersen 2002). For various reasons, however, fish, birds, snakes and mammals almost invariably have common names in general use. Many frogs are cryptic, so there has been little opportunity for these species to acquire popularly accepted names. In the Top End, few frog names have infiltrated the vernacular; perhaps Green Tree Frog, Rocket Frog and Marbled Frog are the best known.

Ideally, common names should be adopted by general consensus or through widely accepted usage, but this has not been the case with native frogs. Tyler and Davies (1986), for example, did not include common names in their book 'Frogs of the Northern Territory', whereas the FrogWatch North website lists species alphabetically by common name. As a first step toward designating appropriate and acceptable common names for Top End frogs, I collated names for all species listed by NRETA (2006), FrogWatch North (2006), Tyler (1992), Barker *et al.* (1995), Clayton *et al.* (2006), Ingram *et al.* (1993), and Frank and Ramus (1995). I have also provided additional suggestions from myself and others. It is hoped that this list will provide a point of discussion from which a series of apposite names can be selected and adopted; as such it is not meant to be prescriptive, merely descriptive.

Included in the list are species that occur in the Top End of the Northern Territory (NT), defined here as north of the vicinity of the 15th parallel, extending from the Victoria River drainage in the west to the Roper River in the east, and largely excluding the Cretaceous Sturt Plateau. This area is similar to the outdated Arnhem 'natural region' of Barlow (1985) (see Beard 1985), but has the advantage of irregular

boundaries that are drainage systems, natural features of the landscape that are likely to influence amphibian distributions. The area encompasses the Tiwi Cobourg, Top End (Darwin & Arnhem) Coastal, Pine-Creek Arnhem Plateau, Central Arnhem and Daly Basin bioregions of Environment Australia (2000), extends partway into the Victoria Bonaparte bioregion, and largely excludes the Gulf Coastal, Gulf Fall and Uplands, and Sturt Plateau bioregions. The region supports a distinct suite of species (including several endemics) that are confined to higher rainfall areas of the monsoonal north, as well as species that penetrate inland. As such it is a convenient line of demarcation with some biogeographical utility (e.g. Beard 1985, Bowman *et al.* 1988, Cracraft 1991*)* but in reality there is gradual species turnover in response to the latitudinal climate gradient (Fisher 2001). The frog fauna of the region has similarities with that of north Queensland (Tyler 1999, Woinarski *et al.* 1999) and the Kimberley region, which Tyler *et al.* (2000) judged 'a separate herpetofaunal unit in Australia'.

The region as thus delimited therefore includes the islands, coastal and sub-coastal zones and exorheic drainages of the northern portion of the NT. It embraces frogs that occur on Melville Island (Tyler *et al.* 1991), Groote Eylandt (Tyler *et al.* 1986), other offshore islands (Woinarski *et al.* 1999), Cobourg Peninsula (Cogger & Lindner 1974), Arnhem Land (Cogger 1981, Gambold & Woinarski 1993) and Kakadu (Tyler *et al.* 1983, Braithwaite *et al.* 1991, Press *et al.* 1995). Species that occur only at or beyond the western and eastern boundaries of the region (*e.g. Litoria splendida* and *Cyclorana alboguttata* respectively) or that occur predominantly in the semi-arid transition zone (*e.g. Uperoleia trachyderma, Cyclorana maculosa*) were excluded from the list. Only those species that have been described are listed, including a recently recognised species from near Darwin (Young *et al.* 2005). There are almost certainly more species from the region that await description pending anatomic, genetic and bioacoustic analyses.

Comments

A total of 28 native species are included in Table 1, slightly less than the 31 species listed by Gow (1981) for the 'northern sector' of the NT (north of 18°S). The introduced Cane Toad *Bufo marinus* has become established in the region, but is not listed. Of the 28 frogs, 20 are known from the immediate vicinity of Darwin (Table 1). Tyler and Davies (1986) listed only 16 species for areas within 50 km of Darwin, but Dostine (2003) listed 21 species for the Darwin Harbour catchment. Species not found near Darwin are restricted to rocky streams (e.g. *Litoria meiriana*), higher rainfall areas (e.g. *Rana daemeli*), or are endemic to the Arnhem Land escarpment (e.g. *Uperoleia arenicola, Litoria personata*). Most names used by the various authors correspond to those used by Tyler (1992), as adopted by NRETA (2006) and CSIRO (Clayton *et al.* 2006) (Table 1). The major points of difference are the Ingram *et al.* (1993) list for Queensland frogs (although not all Top End frogs occur there), and Frank and Ramus (1995), who seem to have essentially ignored any previously published common names. Additional suggestions are provided in the last column.

Table 1. List of common names for native frog species that occur in the Top End. Published names: T = Tyler (1992), B = Barker *et al.* (1995), F = Frog Watch North (2006), N = NRETA (2006), C = CSIRO list of vertebrates, I = Ingram *et al.* (1993), FR = Frank and Ramus (1995). Names preferred by the author indicated in bold. † = does not occur within the vicinity of Darwin (~50km radius)

FAMILY *Species*	Published common names	Other names
HYLIDAE (Pelodryadinae)		
Cyclorana australis	Giant Frog [TBFNC] Northern Snapping-Frog [I] Australian Water-holding Frog [FR]	Giant Burrowing Frog Giant Ground Frog 'australis' Barra Frog
C. longipes	Long-footed Frog [TBFNC] Collared-Frog [I] Kimberley Water-holding Frog [FR]	Blotchy Frog Variegated Burrowing Frog
Litoria bicolor	Northern Dwarf Tree-frog [TFNC] Green Reed Frog [B] Northern Sedgefrog [I] Northern Dwarf Treefrog [FR]	Lined Grass Frog Pandan Frog Bicolored Grass Frog 'bicolor'
L. caerulea	Green Tree-frog [TN] **Green Tree Frog** [BFC] Green Treefrog [I] White's Treefrog [FR]	'GTF' 'caerulea' Smiling Frog Dumpy Tree Frog
L. coplandi†	Copland's Rock Frog [TBFNC] Sandstone Frog [I] Saxicoline Treefrog [FR]	Rocky River Frog
L. dahlii	Dahl's Aquatic Frog [TBFNC] **Northern Waterfrog** [I] Dahl's Olive Treefrog [FR]	Floodplain Frog Northern Lagoon Frog
L. inermis	Peters' Frog [TBC] Peter's Frog [FN] Bumpy Rocketfrog [I] Fleck-lipped Treefrog [FR]	Bumpy Frog Bumpy Ground Hylid
L. meiriana†	**Rockhole Frog** [IBFNC] Australian Cross-banded Treefrog [FR]	Skipping Frog
L. microbelos	Javelin Frog [IBFNC] Pygmy Rocketfrog [I] Cairns Treefrog [FR]	Midget Grass Frog
L. nasuta	**Rocket Frog** [IBFNC] Striped Rocketfrog [I] Australian Rocket Frog [FR]	'butwick'
L. pallida	Pale Frog [IBFNC] Peach-sided Rocketfrog [I] Coastal Floodplains Treefrog [FR]	Variable Frog Plain Ground Hylid

Table 1 continued

FAMILY *Species*	Published common names	Other names
L. personata†	Masked Rock-frog [TN] Masked Frog [BC] Masked Cave-Frog [F] Sandstone Treefrog [FR]	Escarpment Frog **Masked Scarp Frog**
L. rothii	Roth's Tree-frog [TN] Roth's Tree Frog [BFC] Red-eyed Treefrog [I] Rust-eyed Treefrog [FR]	Cackle Frog Laughing Tree Frog
L. rubella	Red Tree-frog [TN] Desert Tree-frog [T] Red Tree Frog [B] Desert Tree Frog [FCFR] Naked Treefrog [I]	Seagull Frog Little Red Tree Frog Brown Tree Frog
L. tornieri	Tornier's Frog [TBFNC] Black-shinned Rocketfrog [I] Tornier's Australian Treefrog [FR]	'tornieri'
L. wotjulumensis	Wotjulum Frog [TFNC] Watjulum Frog [B] Giant Rocketfrog [I] Watjulum Mission Treefrog [FR]	Large Ground Hylid Large Rocketfrog 'wotjulumensis'
MYOBATRACHIDAE		
Crinia bilingua	Bilingual Froglet [TBNC] Bilingual Frog [F] Ratchet Frog [F] Bleating Froglet [FR]	Riparian Froglet Rattling Froglet
C. remota †?	Remote Froglet [TBFNC] Torrid Froglet [I] Paperbark Froglet [FR]	
Limnodynastes ornatus	**Ornate Burrowing Frog** [TBFNCIFR]	Ornate Frog Ornate Ground Frog
L. convexiusculus	**Marbled Frog** [TBFNCI] Australian Marbled Frog [FR]	Garden Frog Tropical Garden Frog
Megistolotis lignarius†	**Carpenter Frog** [TFN] Woodworker Frog [BC]	Big-eared Rock Frog
Notaden melanoscaphus	Northern Spadefoot Toad [TBNCFR] Golfball Frog [F] Brown Orbfrog [I]	Black-tipped Spadefoot Northern Round Frog Whooping Frog
Uperoleia arenicola†	Jabiru Toadlet [TBFNC] Alligator River Toadlet [FR]	Jabiru Upe
U. inundata	Floodplain Toadlet [TFNC] Flood Plain Toadlet [B] Floodplain Gungan [I] Mottled Toadlet [FR]	Floodplain Upe Northern Seep Frog
U. lithomoda	Stonemason Toadlet [TBFNC] Stonemason Gungan [I]	Tapper Upe 'tap'
U. daviesae	Howard River Toadlet [F]	Howard River Upe Sandsheet Upe

Table 1 continued

FAMILY *Species*	Published common names	Other names
MICROHYLIDAE		
Austrochaperina adelphe†	Northern Territory Frog [T B F N C] Chirper [I] Peeping Land Frog [F R]	**Top End Chirper** Top End Microhylid Top End Tiny Frog
RANIDAE		
Rana daemeli†	Water Frog [I B N] Wood Frog [F C] Australian Bullfrog [I] Australian Wood Frog [F R]	Arnhem Rana

In selecting names, it is preferable that a familiar appellation be applied to each species, however, some common names, particularly the 'official' names of Tyler (1992) are unappealing. In some cases this is because they are a direct translation of the scientific name, in others it may be due to a lack of inventiveness or familiarity with the species' habits. The rationale for allocation of common names should be decided on by a group consensus, not an individual decision, and RAOU (1978) and Yearsley *et al.* (2006) in their selection of common names for birds and fishes respectively, provide general principles that may be appropriate to the current discussion.

Ideally, any name applied to an animal should incorporate a uniquely identifying feature, or should characterise the animal in some way. Names may be based on specific morphological features (e.g. scaphus, patterning), species-specific calls (e.g. Carpenter Frog), or relate to the general habitus (shape) of the frog (e.g. Rocket Frog). In some instances names may relate to habitat preferences, particularly where these are relatively restricted. An example is the Rockhole Frog, which is virtually confined to the immediate vicinity of permanent, residual waters in rocky gullies. In certain cases geographical locations may be used, but this is best suited to highly localised or endemic species (e.g. Howard River Toadlet, Jabiru Toadlet). In contrast, the ground hylid *Litoria wotjulumensis* was originally collected from Wotjulum in the northern Kimberley, but has a broad geographic distribution that extends to Queensland. The use of a person's name, for example Peter's Frog for *Litoria inermis*, is less desirable because the person has no specific relation to the innate qualities or existence of the animal; its biology, behaviour, anatomy, morphology or evolutionary history.

The genus *Litoria* (Family Hylidae), as currently recognised, incorporates species with a diverse range of habits, and these could perhaps be reflected in the common names. Several of the hylid frogs (commonly called 'tree frogs') are terrestrial ground-dwellers, notably *Litoria pallida*, *L. inermis*, *L. wotjulumensis* and *L. tornieri*. One possibility would be to use the term 'Ground Hylid' in combination with a specific variant for these

frogs. A minor issue is the use of Tree Frog versus Tree-frog; the standard in ornithology is to use upper then lower case, e.g. Fairy-wren, but there is not necessarily a standard in herpetology. Barker *et al.* (1995) and others tend to employ 'Tree Frog', whereas Frank and Ramus (1995) have adopted 'Treefrog'. The tree frog *Litoria rubella* is widespread and clearly not restricted to deserts, hence an alternative to 'Desert Tree Frog' is required in this case.

Among the myobatrachids the term 'Upe' is a possible alternative to 'toadlet' for the various species of *Uperoleia*. Alternatively, the aboriginal term 'Gungan' was suggested by Ingram *et al.* (1993) for Queensland species. Providing suitable names for new species of small, cryptic frogs could be a difficult proposition, since few morphological features are present that distinguish these species from one another. Species-specific calls can also be similar, as is the case with the newly described *U. daviesae* and its congener *U. inundata* (Young *et al.* 2005). It is unclear as to which other species of *Crinia* in addition to *C. bilingua* occur in the region (Table 1), and the situation needs to be clarified to facilitate establishment of correctly applied common and scientific names. The general term 'froglet' however seems suited to these diminutive swamp and riparian zone inhabitants. Application of the term 'toad' to native frogs is confusing, since there are no native representatives of the family Bufonidae in Australia. There is the potential to confuse 'Spadefoot' with members of the well-studied genus *Scaphiopus* of the United States. Ingram *et al.* (1993) also suggest avoiding the term toad, and perhaps 'Golfball Frog' or 'Round Frog' is appropriate for *Notaden melanoscaphus*.

Several species of frog are restricted to the NT, so that 'Northern Territory Frog' seems inappropriate for the sole representative of the Microhylidae in the Top End (*Austrochaperina adelphe*). Top End Chirper may be a suitable name in this case.

There has been and will continue to be some instability associated with the scientific nomenclature of frogs. Some researchers consider *Megistolotis lignarius* (Tyler *et al.* 1979) to be a member of the genus *Limnodynastes* (Schauble *et al.* 2000). Likewise, our *Sphenophryne* is now *Austrochaperina* (Zweifel 2000). The genus name *Ranidella* has been used in certain instances (e.g. Tyler & Davies 1986), but *Crinia* is now widely adopted as an all inclusive generic name. The most recent suggestions that affect the scientific names of Top End frogs are a change from *Limnodynastes* to *Opisthodon* for *L. ornatus* and from *Rana* to *Sylvirana* for *R. daemeli* (Frost *et al.* 2006). Further alterations to specific and generic names for Australian frogs are likely in the future (although see Kluge 2005).

Whilst I have provided a comprehensive list of English common names for Top End frogs, it is possible that other colloquial usages have become established in the Kimberley region and in the northern NT, and there are almost certainly a range of indigenous names for some species. Until such time as a consensus decision has been made it would be injudicious to commit to a series of names. Some suggested names are preferred by the author and these are indicated in Table 1. For the remaining

species it may be simpler in the interim to use the designated scientific name, as does Menzies (2006) for New Guinea frogs. Language is ultimately a means of communication, and it would be desirable to have a set of common names that are standardised and appropriate to particular frog species, but that also reflect the regional flavour associated with the naming of animals.

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The Marbled Frog *Limnodynastes convexiusculus* inhabits moist soil under leaf litter during the day and is common in some suburban Darwin gardens. (Stephen Reynolds)